

# ISO 19030-1:2016-11 (E)

## Ships and marine technology - Measurement of changes in hull and propeller performance - Part 1: General principles

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	1
4	General principles .....	2
4.1	Hull and propeller performance .....	2
4.2	Ship propulsion efficiency and total resistance .....	3
4.3	Primary parameters when measuring changes in hull and propeller performance .....	4
4.4	Secondary parameters .....	5
4.5	Measurement procedures .....	5
4.5.1	General .....	5
4.5.2	Data acquisition .....	6
4.5.3	Data storage .....	6
4.5.4	Data preparation .....	6
5	Performance indicators .....	6
5.1	Dry-docking performance: Change in hull and propeller performance following present out-docking as compared with the average from previous out-dockings .....	7
5.2	In-service performance: The average change in hull and propeller performance over the period following out-docking to the end of the dry-docking interval .....	8
5.3	Maintenance trigger: Change in hull and propeller performance from the start of the dry-docking interval to a moving average at any chosen time .....	9
5.4	Maintenance effect: Change in hull and propeller performance measured before and after a maintenance event .....	10
6	Measurement uncertainties and the accuracy of the performance indicators .....	11
Annex A (informative)	Method and assumptions for estimating the uncertainty of a performance analyses process .....	13
Bibliography .....		30